

**CUMBERLAND VALLEY ELECTRIC, INC.**

P.O. BOX 440  
GRAY, KENTUCKY 40734

March 29, 2008

Stephanie L. Stumbo  
Commission Executive Director  
P.O Box 615  
Frankfort, KY 40602-0615

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COMMISSION

Director Stumbo,

Enclosed with this letter is the response of Cumberland Valley Electric, Inc. (CVE) regarding PSC Case 2006-00494 in Microsoft Excel 1997-2003 format.

Sincerely,  
Mark Abner  
Engineering Manager  
Cumberland Valley Electric

# Reliability Report for 2003

## System Average Indices

<b>SAIFI</b>	<b>1.5605</b>	
	<b>Cause</b>	<b>Contribution</b>
	Tree on Line	42.8%
	Equipment Failure	35.6%
	Storm	12.1%
	Power Supply	3.4%
	Animals	3.4%
	Accident	2.8%
	Planned	0.6%
	Vandalism	0.6%

<b>SAIDI</b>	<b>0.0399</b>	
	<b>Cause</b>	<b>Contribution</b>
	Tree on Line	47.7%
	Equipment Failure	40.0%
	Storm	5.9%
	Animals	3.9%
	Vandalisim	1.5%
	Accident	1.4%
	Power Supply	0.2%
	Planned	0.2%

<b>CAIDI</b>	<b>1.5618</b>	
	<b>Cause</b>	<b>Contribution</b>
	Equipment Failure	42.6%
	Tree on Line	41.9%
	Animals	6.9%
	Storm	5.0%
	Vandalism	2.1%
	Accident	0.9%
	Power Supply	0.3%
	Planned	0.2%

## Excluding Storms

<b>SAIFI</b>	<b>1.3936</b>
<b>SAIDI</b>	<b>0.0378</b>
<b>CAIDI</b>	<b>1.5506</b>

## Worst Performing Substations

### By SAIFI Index

SAIFI	Substation	Largest Contributing Factor
4.0333	E50 Pine Mountain	Tree on Line
4.0229	S85 Carpenter	Tree on Line
3.2857	E72 Greasy Creek	Tree on Line
2.8344	E110 Chad	Tree on Line
2.7288	E64 Ovenfork	Equipment Failure
2.4128	S64 Goldbug	Storm
1.2414	E51 Bledsoe	Tree on Line
1.0625	S45 South Corbin	Equipment Failure
1.0092	S41 Jellico Creek	Tree on Line
0.9689	S26 Cumberland Falls	Power Supply

### By SAIDI Index

SAIDI	Substation	Largest Contributing Factor
0.7080	E64 Ovenfork	Tree on Line
0.1990	E72 Greasy Creek	Tree on Line
0.0727	E51 Bledsoe	Tree on Line
0.0723	S41 Jellico Creek	Equipment Failure
0.0613	E110 Chad	Tree on Line
0.0579	S85 Carpenter	Tree on Line
0.0550	E50 Pine Mountain	Tree on Line
0.0497	S64 Goldbug	Tree on Line
0.0478	S87 Bacon Creek	Equipment Failure
0.0422	S26 Cumberland Falls	Tree on Line

### By CAIDI Index

CAIDI	Substation	Largest Contributing Factor
2.0435	S41 Jellico Creek	Tree on Line
1.9020	S64 Goldbug	Storm
1.8986	E64 Ovenfork	Tree on Line
1.6524	E51 Bledsoe	Tree on Line
1.6250	E72 Greasy Creek	Equipment Failure
1.6220	S85 Carpenter	Accident
1.5556	E110 Chad	Tree on Line
1.5511	S22 Rockhold	Equipment Failure
1.4857	S53 Hinkle	Tree on Line
1.4573	S26 Cumberland Falls	Tree on Line

# Reliability Report for 2004

## System Average Indices

<b>SAIFI</b>	<b>1.5873</b>	
	Cause	Contribution
	Tree on Line	42.2%
	Equipment Failure	41.1%
	Power Supply	6.2%
	Accident	5.0%
	Animals	2.2%
	Storm	2.1%
	Planned	1.2%
	Vandalism	0.0%

<b>SAIDI</b>	<b>0.0435</b>	
	Cause	Contribution
	Tree on Line	46.8%
	Equipment Failure	41.7%
	Accident	4.6%
	Animals	3.8%
	Power Supply	1.3%
	Storm	1.1%
	Planned	0.6%
	Vandalisim	0.2%

<b>CAIDI</b>	<b>1.4685</b>	
	Cause	Contribution
	Equipment Failure	49.7%
	Tree on Line	41.6%
	Animals	7.5%
	Storm	1.9%
	Vandalism	0.2%
	Accident	4.2%
	Power Supply	0.3%
	Planned	0.7%

## Excluding Storms

<b>SAIFI</b>	<b>1.5541</b>
<b>SAIDI</b>	<b>0.0430</b>
<b>CAIDI</b>	<b>1.6303</b>

## Worst Performing Substations

### By SAIFI Index

SAIFI	Substation	Largest Contributing Factor
6.4391	E51 Bledsoe	Tree on Line
5.5900	E50 Pine Mountain	Tree on Line
4.9688	E72 Greasy Creek	Tree on Line
4.0000	E64 Ovenfork	Equipment Failure
1.9175	S64 Goldbug	Equipment Failure
1.7456	E110 Chad	Equipment Failure
1.6854	S48 North Corbin	Power Supply
1.4960	S85 Carpenter	Tree on Line
1.4172	S22 Rockhold	Equipment Failure
1.3061	S41 Jellico Creek	Tree on Line

### By SAIDI Index

SAIDI	Substation	Largest Contributing Factor
0.5938	E72 Greasy Creek	Tree on Line
0.2420	E50 Pine Mountain	Tree on Line
0.1529	E51 Bledsoe	Tree on Line
0.0790	E64 Ovenfork	Tree on Line
0.0645	S85 Carpenter	Tree on Line
0.0598	E110 Chad	Tree on Line
0.0462	S41 Jellico Creek	Tree on Line
0.0337	S26 Cumberland Falls	Equipment Failure
0.0319	S64 Goldbug	Equipment Failure
0.0301	S87 Bacon Creek	Equipment Failure

### By CAIDI Index

CAIDI	Substation	Largest Contributing Factor
3.8000	E72 Greasy Creek	Tree on Line
3.4545	E50 Pine Mountain	Tree on Line
2.2500	S48 North Corbin	Power Supply
2.1808	E51 Bledsoe	Equipment Failure
1.9563	E64 Ovenfork	Equipment Failure
1.9524	E110 Chad	Tree on Line
1.5568	S53 Hinkle	Equipment Failure
1.4753	S85 Carpenter	Accident
1.3857	S26 Cumberland Falls	Storm
1.3696	S64 Goldbug	Animals

# Reliability Report for 2005

## System Average Indices

**SAIFI**

**1.2186**

Cause	Contribution
Tree on Line	36.7%
Power Supply	25.5%
Equipment Failure	19.6%
Accident	9.6%
Animals	5.8%
Planned	1.3%
Storm	0.7%
Construction	0.6%
Fire	0.2%
Vandalism	0.1%

**SAIDI**

**0.035**

Cause	Contribution
Tree on Line	39.8%
Equipment Failure	39.5%
Animals	5.6%
Fire	4.1%
Storm	3.9%
Accident	3.0%
Construction	1.4%
Planned	1.1%
Lightning	0.8%
Power Supply	0.3%

**CAIDI**

**1.4724**

Cause	Contribution
Equipment Failure	45.3%
Tree on Line	31.4%
Fire	7.1%
Animals	7.1%
Storm	2.9%
Planned	1.8%
Accident	1.5%
Construction	1.1%
Power Supply	0.9%
Overload	0.4%

## Excluding Storms

**SAIFI**

**1.2102**

**SAIDI**

**0.0337**

**CAIDI**

**1.4577**

## Worst Performing Substations

### By SAIFI Index

SAIFI	Substation	Largest Contributing Factor
5.4806	E51 Bledsoe	Tree on Line
4.1391	S85 Carpenter	Power Supply
1.9527	E110 Chad	Equipment Failure
1.5520	E64 Ovenfork	Tree on Line
1.0000	E73 Arkland	Equipment Failure
0.7960	E50 Pine Mountain	Tree on Line
0.4915	S45 South Corbin	Tree on Line
0.3119	S22 Rockhold	Tree on Line
0.2676	S41 Jellico Creek	Tree on Line
0.2519	S64 Goldbug	Tree on Line

### By SAIDI Index

SAIDI	Substation	Largest Contributing Factor
1.5000	E73 Arkland	Equipment Failure
0.0642	S85 Carpenter	Tree on Line
0.0572	E51 Bledsoe	Tree on Line
0.0533	S41 Jellico Creek	Tree on Line
0.0517	E50 Pine Mountain	Equipment Failure
0.0428	S87 Bacon Creek	Equipment Failure
0.0415	E64 Ovenfork	Equipment Failure
0.0410	E110 Chad	Equipment Failure
0.0393	S64 Goldbug	Tree on Line
0.0322	S22 Rockhold	Tree on Line

### By CAIDI Index

CAIDI	Substation	Largest Contributing Factor
2.1324	S41 Jellico Creek	Animals
2.0000	E50 Pine Mountain	Equipment Failure
1.7321	S22 Rockhold	Tree on Line
1.6268	S85 Carpenter	Lightning
1.5978	S53 Hinkle	Tree on Line
1.5392	S64 Goldbug	Storm
1.5216	E110 Chad	Tree on Line
1.5000	E73 Arkland	Equipment Failure
1.3966	S26 Cumberland Falls	Tree on Line
1.3239	S21 Emanuel	Accident

# Reliability Report for 2006

## System Average Indices

**SAIFI**

**1.3218**

Cause	Contribution
Tree on Line	50.1%
Equipment Failure	31.3%
Planned	7.1%
Storm	5.2%
Animals	4.8%
Construction	1.0%
Fire	0.4%
Power Supply	0.1%
Overload	0.1%
Accident	0.0%

**SAIDI**

**0.0567**

Cause	Contribution
Tree on Line	40.6%
Equipment Failure	39.1%
Animals	6.0%
Storm	4.7%
Fire	2.7%
Overload	2.1%
Planned	1.6%
Accident	1.3%
Construction	1.2%
Lightning	0.6%

**CAIDI**

**1.9144**

Cause	Contribution
Equipment Failure	44.2%
Tree on Line	30.6%
Animals	10.6%
Fire	5.4%
Storm	4.3%
Planned	2.3%
Construction	1.2%
Overload	0.4%
Lightning	0.4%
Accident	0.3%

## Excluding Storms

**SAIFI**

**1.2535**

**SAIDI**

**0.0541**

**CAIDI**

**1.9026**

## Worst Performing Substations

### By SAIFI Index

SAIFI	Substation	Largest Contributing Factor
7.3114	E50 Pine Mountain	Equipment Failure
6.6832	E110 Chad	Tree on Line
3.7400	E51 Bledsoe	Equipment Failure
3.5109	E64 Ovenfork	Equipment Failure
2.2923	S64 Goldbug	Tree on Line
0.9276	S22 Rockhold	Tree on Line
0.5973	S87 Bacon Creek	Tree on Line
0.5630	S85 Carpenter	Tree on Line
0.5099	S45 South Corbin	Tree on Line
0.3791	S41 Jellico Creek	Equipment Failure

### By SAIDI Index

SAIDI	Substation	Largest Contributing Factor
0.2378	E64 Ovenfork	Equipment Failure
0.1941	E110 Chad	Tree on Line
0.1464	E50 Pine Mountain	Tree on Line
0.0785	E51 Bledsoe	Tree on Line
0.0626	S45 South Corbin	Equipment Failure
0.0594	S26 Cumberland Falls	Equipment Failure
0.0564	S41 Jellico Creek	Equipment Failure
0.0459	S64 Goldbug	Equipment Failure
0.0354	S85 Carpenter	Tree on Line
0.0319	S87 Bacon Creek	Equipment Failure

### By CAIDI Index

CAIDI	Substation	Largest Contributing Factor
4.2813	E64 Ovenfork	Tree on Line
3.5533	E110 Chad	Tree on Line
2.0763	S41 Jellico Creek	Tree on Line
1.9079	E51 Bledsoe	Tree on Line
1.8670	S26 Cumberland Falls	Storm
1.7083	E50 Pine Mountain	Tree on Line
1.5515	S53 Hinkle	Accident
1.5410	S64 Goldbug	Lightning
1.3774	S22 Rockhold	Construction
1.3681	S85 Carpenter	Tree on Line

# Reliability Report for 2007

## System Average Indices

<b>SAIFI</b>	<b>1.1542</b>	
	<b>Cause</b>	<b>Contribution</b>
	Tree on Line	46.1%
	Equipment Failure	21.2%
	Power Supply	9.2%
	Accident	7.8%
	Animals	6.8%
	Planned	5.8%
	Storm	2.5%
	Fire	0.3%
	Construction	0.2%
	Vandalism	0.1%

<b>SAIDI</b>	<b>0.0385</b>	
	<b>Cause</b>	<b>Contribution</b>
	Equipment Failure	39.7%
	Tree on Line	38.2%
	Animals	6.1%
	Fire	4.6%
	Planned	3.9%
	Storm	2.3%
	Vandalism	2.1%
	Accident	1.9%
	Construction	0.6%
	Lightning	0.3%

<b>CAIDI</b>	<b>1.4292</b>	
	<b>Cause</b>	<b>Contribution</b>
	Equipment Failure	41.6%
	Tree on Line	30.7%
	Animals	7.3%
	Fire	7.1%
	Planned	4.6%
	Storm	2.7%
	Vandalism	2.7%
	Accident	1.7%
	Construction	0.9%
	Lightning	0.5%

## Excluding Storms

<b>SAIFI</b>	<b>1.1254</b>
<b>SAIDI</b>	<b>0.0376</b>
<b>CAIDI</b>	<b>1.4346</b>

## Worst Performing Substations

### By SAIFI Index

SAIFI	Substation	Largest Contributing Factor
6.3237	E50 Pine Mountain	Tree on Line
2.8745	E51 Bledsoe	Tree on Line
2.0020	S26 Cumberland Falls	Power Supply
1.8714	E110 Chad	Tree on Line
1.1583	S85 Carpenter	Tree on Line
1.1091	S64 Goldbug	Equipment Failure
1.0539	E64 Ovenfork	Tree on Line
1.0501	S22 Rockhold	Tree on Line
0.8290	S21 Emanuel	Tree on Line
0.8287	S45 South Corbin	Accident

### By SAIDI Index

SAIDI	Substation	Largest Contributing Factor
0.1272	E50 Pine Mountain	Tree on Line
0.1218	E51 Bledsoe	Equipment Failure
0.0678	S41 Jellico Creek	Equipment Failure
0.0612	S85 Carpenter	Equipment Failure
0.0544	E64 Ovenfork	Equipment Failure
0.0400	E110 Chad	Tree on Line
0.0382	S87 Bacon Creek	Planned
0.0369	S26 Cumberland Falls	Equipment Failure
0.0302	S64 Goldbug	Equipment Failure
0.0274	S45 South Corbin	Equipment Failure

### By CAIDI Index

CAIDI	Substation	Largest Contributing Factor
2.5568	E51 Bledsoe	Tree on Line
2.2000	E50 Pine Mountain	Tree on Line
2.1818	S41 Jellico Creek	Storm
2.0185	E64 Ovenfork	Tree on Line
2.0000	S87 Bacon Creek	Planned
1.4762	S64 Goldbug	Accident
1.3961	S85 Carpenter	Animals
1.2766	S53 Hinkle	Vandalism
1.2670	S26 Cumberland Falls	Equipment Failure
1.1111	S22 Rockhold	Accident